Mr. Laumeyer
Avery Dennison MFD
270 West Meadow Place
Lowell, Indiana 46356

Re: 089-12832
First Significant Permit Modification to:
Part 70 permit No.: 089-7463-00407

Dear Mr. Laumeyer:

Avery Dennison MFD was issued a permit on July 14, 1999 for a pressure sensitive vinyl coated products manufacturing operation. A letter requesting changes to this permit was received on September 13, 2000. Pursuant to 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of a new coating head to existing line L-2. The new unit will comply with all existing NSPS requirements and be limited to ten (10) tons per year of VOC emissions.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. Pursuant to Contract No. A305-0-00-36, IDEM, OAM has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mike Pring, ERG, P.O. Box 2010, Morrisville, North Carolina 27560, or call (919) 468-7840 to speak directly to Mr. Pring. Questions may also be directed to Duane Van Laningham at IDEM, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

ERG/MP

cc: File - Lake County
U.S. EPA, Region V
Lake County Health Department
Northwest Regional Office
Air Compliance Section Inspector - Ramesh Tejuja
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a
Part 70 Significant Permit Modification

Source Background and Description

Source Name:	Avery Dennison MFD
Source Location:	270 West Meadow Place, Lowell, Indiana 46356
County:	Lake
SIC Code:	3089
Operation Permit No.:	T 089-7463-00407
Operation Permit Issuance Date:	July 14, 1999
Significant Modification No.:	089-12832-00407
Permit Reviewer:	ERG/MP

The Office of Air Management (OAM) has reviewed a modification application from Avery Dennison MFD relating to the construction of the following emission units and pollution control devices:

(a) One coating head, identified as CH-1 with a maximum capacity of 23,063 square feet per hour, using one (1) existing 9.8 MMBtu/hr natural gas fired thermal oxidizer as control, and exhausting to existing stack S-2.

History

On September 13, 2000, Avery Dennison MFD submitted an application to the OAM requesting to add an additional coating head to their existing plant. Avery Dennison MFD was issued a Part 70 permit on July 14, 1999.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 13, 2000. Additional information was received on October 23, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A pages 1 and 2).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0
PM-10	0
SO_2	0
VOC	518
CO	0
NO_x	0

HAP's	Potential To Emit (tons/year)
Toluene	111
TOTAL	111

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Permit Modification. This modification is being performed pursuant to 326 IAC 2-7-12(b)(E) as the new coating head is a modification under Title I of the Clean Air Act (40 CFR Part 60, Subpart A).

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	moderate nonattainment
SO_2	primary nonattainment
NO_2	attainment
Ozone	severe nonattainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as nonattainment for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	less than 100
PM-10	less than 100
SO_2	less than 100
VOC	greater than 250
CO	less than 100
NOx	less than 100

(a) This existing source is a major stationary source because a severe non-attainment regulated pollutant is emitted at a rate of 25 tons per year or more.

(b) These emissions are based upon the TSD for T 089-7463-00407.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Coating Head (CH-1)				10			10

The source has accepted a limit of 10 tons per year VOC and 10 tons per year total HAP for the new coating head CH-1.

Therefore, this modification to an existing major stationary source is not major because the aggregated emissions increase over the last five (5) years is than the Emission Offset significant levels and pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Federal Rule Applicability

(a) The coating head (CH-1) is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.440, Subpart RR). Pursuant to this subpart, the Permittee shall demonstrate a ninety percent (90%) overall Volatile Organic Compound (VOC) emission reduction as calculated over one calendar month. A compliance test performed according the EPA Method 25 and 25A shall determine compliance with this requirement.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

326 IAC 8-2-5 (Paper Coating Operations)

The coating head CH-1 is subject to the requirements of 326 IAC 8-2-5 (Paper Coating Operations) because it has 100% substrate saturation, it will be constructed after July 1, 1990, and is expected to have volatile organic compound (VOC) emissions greater than fifteen (15) pounds per day before add-on controls.

Pursuant to 326 IAC 8-2-5 (Paper Coating Operations), the Permittee shall not cause allow, or permit the discharge into the atmosphere of any volatile organic compound (VOC) in excess of two and nine-tenths (2.9) pounds per gallon of coating, excluding water, delivered to the coating applicator from a paper, plastic, metal foil, or pressure sensitive tape/labels coating line.

The thermal oxidizer for the coating head CH-1 shall be in operation at all times the coating head CH-1 is in operation to ensure compliance with this requirement since the coating used in this coating head contains 5.4 (lb VOC/gallon).

326 IAC 2-4.1 (New Source Toxics Control)

The coating head CH-1 is not subject to 326 IAC 2-4.1 (New Source Toxics Control) as it will not be a major source of HAP since it will be subject to a limit of ten (10) tons per year total HAP.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Proposed Changes

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(1) One (1) pressure-sensitive vinyl rollcoating line, installed on July 1, 1980, identified as L-1, with maximum capacity of 24,750 square feet per hour, using one (1) 6.9 million British thermal units per hour (mmBtu/hr) natural gas fired thermal oxidizer as VOC control, exhausting to one (1) stack (S-1);

(2) One (1) pressure-sensitive vinyl rollcoating line, installed on December 1, 1984, **and one (1) surface coating head (CH-1), installed in 2001,** identified **together** as L-2, with maximum capacity of 23,063 square feet per hour, using one (1) 9.8 million British

thermal units per hour (mmBtu/hr) natural gas fired thermal oxidizer as VOC control, exhausting to one (1) stack (S-2); and

(3) One (1) pressure-sensitive vinyl/paper rollcoating line, installed on June 1, 1988, identified as L-3, with maximum capacity of 30,750 square feet per hour, using one (1) 11.2 million British thermal units per hour (mmBtu/hr) natural gas fired thermal oxidizer as VOC control, exhausting to one (1) stack (S-3).

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(1) One (1) pressure-sensitive vinyl rollcoating line, installed on July 1, 1980, identified as L-1, with maximum capacity of 24,750 square feet per hour, using one (1) 6.9 million British thermal units per hour (mmBtu/hr) natural gas fired thermal oxidizer as VOC control, exhausting to one (1) stack (S-1);

(2) One (1) pressure-sensitive vinyl rollcoating line, installed on December 1, 1984, **and one (1) surface coating head (CH-1), installed in 2001,** identified **together** as L-2, with maximum capacity of 23,063 square feet per hour, using one (1) 9.8 million British thermal units per hour (mmBtu/hr) natural gas fired thermal oxidizer as VOC control, exhausting to one (1) stack (S-2); and

(3) One (1) pressure-sensitive vinyl/paper rollcoating line, installed on June 1, 1988, identified as L-3, with maximum capacity of 30,750 square feet per hour, using one (1) 11.2 million British thermal units per hour (mmBtu/hr) natural gas fired thermal oxidizer as VOC control, exhausting to one (1) stack (S-3).

D.1.4 Volatile Organic Compounds and HAPs [326 IAC 2-3] [326 IAC 2-4.1]

Input of VOC and HAP to the surface coating head (CH-1) shall be limited to less than five hundred (500) tons per consecutive twelve (12) month period, rolled on a monthly basis. At a control efficiency of at least 98% for the thermal oxidizer, these usage limits shall effectively limit emissions of VOC and HAP to less than ten (10) tons per year. Compliance with these limits shall make the Emission Offset and New source Toxics Control rules not applicable.

D.1.8 Volatile Organic Compounds (VOC) and HAPs [326 IAC 2-3] [326 IAC 2-4.1]

Compliance with the VOC and HAP usage limitations contained in Condition D.1.4 shall be determined using formulation data supplied by the coating manufacturer.

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.1 **and D.1.4**, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.

D.1.13 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.4 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
/COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: **Avery Dennison MFD**
Source Address: **270 West Meadow Place, Lowell, Indiana 46356**
Mailing Address: **270 West Meadow Place, Lowell, Indiana 46356**
Part 70 Permit No.: **089-7463-00407**
Facility: **Surface Coating Head CH-1**
Parameter: **VOC**
Limit:: **Ten (10) tons per twelve (12) consecutive month period**

YEAR: _____

Month	VOC/HAP Usage (tons)	VOC/HAP Usage (tons)
	This Month	12 Month Total
Month 1		
Month 2		
Month 3		

9 **No deviation occurred in this quarter.**

9 **Deviation/s occurred in this quarter.**
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 089-12832-00407.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: **Avery Dennison MFD**
Address City IN Zip: **270 West Meadow Place, Lowell, Indiana 46356**
TV# **089-7463**
SPM # **089-12832-00407**
Plt ID: **089-00407**
Reviewer: ERG/MP
Date: 10/30/00

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Paint	7.09	76.10%	0.0%	76.1%	0.0%	19.40%	0.000952	23063.000	5.3955	5.3955	118.4384	2842.5207	518.7600	0.0000	27.81	100%

State Potential Emissions **118.44** **2842.52** **518.76** **0.00**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: **Avery Dennison MFD**
Address City IN Zip: **270 West Meadow Place, Lowell, Indiana 46356**
TV# **089-7463**
SPM # **089-12832-00407**
Plt ID: **089-00407**
Reviewer: ERG/MP
Date: 10/30/00

Material	Density	Gallons of Material	Maximum	Transfer Efficiency	Weight %	Toluene
	(Lb/Gal)	(gal/unit)	(unit/hour)	pct	Toluene	(ton/yr)
Paint	7.09	0.000952	23063.000	100.00%	16.33%	111.32

Total State Potential Emissions **111.32**

METHODOLOGY

Volatile HAPs emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs
Particulate HAPs emission rate (tons/yr) = [Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs]*[1 - Transfer Efficiency]